Though in some places the origin of the disease could be clearly traced to contagion introduced by infected persons or by fomites from without, the disease, as it has spread throughout this country, and during the last few years over the larger portion of Europe, has assumed the unmistakable features of an affection that owes its origin and rapid spread chiefly to some general epidemic morbific cause. In the report from Philadelphia County, where the disease prevailed to the greatest extent, will be found a series of interesting facts bearing mainly upon the etiology of the malady.

In every report the testimony is very strong in favour of vaccination and revaccination with pure efficient matter as a certain preventive, when opportunely performed, against the introduction and spread of variola among a community.

Scarlet fever prevailed, to some extent, throughout Pennsylvania. It was generally of a mild type, with little affection of the throat or serious sequelæ, nor was it productive of a large mortality. Its milder and less destructive character may, in part, be attributed to the hydro-therapeutic unstimulating treatment to which it has been recently subjected.

The same remarks may be made in respect to measles. The disease was mild and easily managed, except when complicated with bronchitis, pneumonia, or with pertussis. The latter complication was frequently met with in the neighbourhood of Sharon, Mercer County.

Cerebro-spinal meningitis prevailed pretty generally throughout the State, in some sections to a much greater extent than in others. Upon the whole, the mortality produced by it was much less than was the case in the widespread epidemic prevalent a few years since. The report from Bradford County is made up almost entirely of a sketch, by Dr. E. P. ALLEN, of the disease as it prevailed in the *county* during 1871. The sketch will very fairly depict the disease as it was met with in other sections of the State.

Diphtheria prevailed extensively in the State. A better acquaintance with the true character of the disease and a consequent adoption of a more rational plan for its treatment has disarmed it of much of the fatality to life which was formerly incurred by its attack.

Dr. DICKESON, of Media, Delaware County, describes an anomalous form of eruptive disease, which he believes to have been "epidemic varioloid, or varicella, with a modified eruption." D. F. C.

ART. XXVI.—*The West Riding Lunatic Asylum Medical Reports.* Edited by J. CRICHTON BROWNE, M.D., F.R.S.E. Vol. ii. 8vo. pp. 306. London: J. & A. Churchill, 1872.

IN reviewing the first volume of these Reports a year ago, we took occasion to advert to the somewhat common complaint that the medical officers of insane hospitals contributed little to the common stock of professional information. We referred to some of the peculiar conditions of hospital life as partly answerable for the little time and attention devoted by alienist physicians to systematic experiment and literary labour. We pointed out the supreme importance, to many curable and convalescent patients, of frequent and protracted social intercourse with the officers. However desirable it may be that observations should be carefully made and recorded, and physiological and therapeutic investigations widely extended, it is infinitely more desirable that minds struggling upwards towards the light from out the gloom of melancholia—deep as the very shadow of death itself—or beginning to regain steadiness and self-control after the stormy chaos of acute mania, should be cheered, aided, and strengthened by those who best understand their trouble. To accomplish this good end, nothing so well avails, at least among patients of some culture and refinement, as familiar personal contact with the medical superintendent. Upon him rest their hopes of cure, and of restoration to the world. In him they put their trust more than in any other earthly being. In his presence they find the highest incentives to self-control and propriety of conduct. To deserve his approval they will put forth wholesome efforts which could never be elicited by the best endeavours of the kindest attendants.

While thus striving to remove the unjust reproach cast upon the officers of insane asylums for apparent indolence or neglect, we yet were glad to learn that the officers of a very large English asylum[1] had resolved to write out and publish the results of such observations and investigations as seemed most likely to be interesting and profitable to their brethren in other walks of medicine.

The volume before us is hardly equal in interest and value to its predecessor. It seems a little as if the editor had determined upon a goodly volume yearly, without any great regard to the quality and real worth of the articles furnished.

Of the thirteen papers which compose this volume, five only are by men actually connected with the asylum. Six are by past members of the hospital staff; and two—that on electricity and that on impairment of language—by men having no connection with the asylum, though allowed to use its cases.

In the opening essay, J. Wilkie Burman, M.D., of Edinburgh, an officer of the asylum, gives the results of his experiments upon the physiological and therapeutical action of the alkaloid conia. The succus conii had been much used in the asylum ; but often with very unsatisfactory results in commencing on new parcels, some proving nearly inert. This testimony to the great inequality of different lots of succus conii agrees closely with American experience. In using the alkaloid, it was hoped that all uncertainty and inequality would be avoided ; but this did not prove to be the case. Not only were some specimens more active than others, but one possessed a peculiar acridity, together with a paralyzing effect on the heart which does not belong to the pure drug. Nevertheless the writer believes that from certain prominent chemists a safe and reasonably uniform article may be now obtained.

Physiological researches were made in experiments upon pigeons, frogs, rabbits, guinea-pigs, dogs, and cats, and repeatedly upon the writer's own system and those of able-bodied officers and attendants. He used the subcutaneous method, because of the supposed highly irritant effect of the drug on the stomach. To avoid such action in the cellular tissue, he neutralizes the conia with acetic acid, according to a formula which he gives. The combination possesses all the medicinal effect of the alkaloid. Though admitting a belief that the drug thus combined might be given by the stomach, he says he never has so given it, but has continued to administer it by the subcutaneous method. This is to be regretted. We confess to an old-fashioned prejudice in favour of the natural channels for the administration of medicines. The hypodermic system, now so much in vogue, harmless as it usually is, yet is attended with a certain degree of risk, to say nothing of its unpleasantness.

Both physiological and therapeutical experiments, as well described by the writer, indicate that we have in this alkaloid a very powerful and valuable drug. Various preparations have long been used and highly prized in American hospitals for the insane; but have often proved weak and inefficient. Dr. Burman believes the drug to act especially on the motor centres. A combination of the acetate of conia with the acetate of morphia has been found especially beneficial in cases of high maniacal excitement.

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[1] Containing from ten to twelve hundred patients.

Dr. Herbert C. Major gives the results of a careful comparison, under the microscope, of sections of gray matter from corresponding convolutions of two brains: one healthy, and the other atrophied from chronic mental disease. He begins by quoting and confirming a statement of Dr. Lockhart Clarke, that there is a difference in the relative proportion and arrangement of the brain-elements in different portions of the brain. In other words, in healthy brains the gray matter is thicker over certain convolutions than over others. This, if true, is certainly as important a fact as he deems it to be. Whether true or not, the method of observation which he adopted is unobjectionable. This was to make precisely correspondent sections from the sound and the atrophied brains, and compare them under the microscope. While aware that observers, to whose skill, experience, and judgment he is disposed to defer, have failed to recognize such diversities in healthy gray matter, and even in the cortical substance of sane and insane brains, he yet confidently maintains that his observations were correctly made. The entire aspect of the diseased sections was different from that of the healthy ones. The difference principally consisted in a diminution of the normal, large, angular, and fusiform nerve-cells, with an increase of the smaller cells and neuclei.

One point—all-important to the conclusiveness of these comparisons—is entirely ignored. Not a word is said as to the manner in which, or the length of time during which, these brains had been preserved before the sections were made. Unequal post-mortem change may have caused all the difference described. This course of inquiry is, however, of great importance, and we hope that Dr. Major, in multiplying his observations, may ultimately arrive at valuable results.

A paper on "Menstrual Irregularities and Insanity" adds little to the amount of our knowledge on the subject. The writer has, however, the good sense to escape the absurdities of some authors who, guided by their preconceived notions rather than by facts, are determined to find in checked menstruation the source of half the insanity of women, and in the restoration of the function the cure of at least as large a number.

The next paper, by Dr. Samuel Mitchell, details some experiments made upon the anæsthetic properties of a mixture of ether-vapour and nitrous oxide gas. Beginning with rabbits, the author subsequently proceeded to trials of the mixture upon himself and upon some of his friends. From these he is led to believe that anæsthesia is more easily and safely produced by the compound than by either agent alone. Some "general observations on stimulants" are appended, in which it is argued that stimulation, so-called, is but the first stage of narcotism. When nervous irritability is relieved by a "stimulant," the effect is due to the paralyzing action of the drug, wholly arresting activity in parts too feeble to act properly.

"Cranial Injuries and Mental Diseases," by J. Crichton Browne, M.D., editor of the work, is a continuation of an article in the previous volume. This paper deals with the mental results as determined by the locality of the cranial injury, and also describes the various mental manifestations liable to follow injuries to the head generally. Attention is directed to the frequency with which cerebral mischief appears diametrically opposite to the seat of violence. Epilepsy following frontal injury is regarded by the writer as a case of this sort. Two original instances are given: one extremely interesting from the varying fullness, pulsation, and colour of the scalp, covering a large aperture in the skull.

In this case, at the outset of epileptic convulsions, the cicatrix would appear bloodless and much sunken; afterwards, for an hour or more, turgid and bulging. Several other cases and experiments are quoted where the phenomena are explicable on the theory that the shock is so transmitted by the arched cranium as to be most destructive opposite the point of impingement. Injury to the third frontal convolution, and to the cerebellum, are referred to in connection with impairment of speech and modification of the sexual instinct.

Many cases are given to illustrate the varied mental phenomena following severe cranial injury. Most of these have been before published. Altogether, this instalment of Dr. Browne's essay, though very interesting, and containing many new cases with the old ones, can hardly be said to add much to the sum of professional knowledge.

An article on "Puerperal Mania" by Geo. Henry Pedler contains some interesting statistical tables of the disease as seen in the West Riding Asylum. A division, not altogether useless, is suggested, into "nervous," "anæmic" and "toxic" cases. In support of the latter designation the author mentions the conditions after delivery, which might not unnaturally lead to blood-poisoning.

Dr. Major makes his second appearance in this volume as the inventor of an ingenious little instrument for the measurement of the thickness of the gray matter covering the cerebral convolutions. He justly reasons that if the weight and measurement of the brain as a whole are of any value as helping to an estimate of intellectual power, the thickness of the gray matter, upon which mental processes are known to be dependent, must be of still greater significance. His device is simply a cylindrical glass tube, finely graduated, open at both ends, with the lower end brought to a circular sharp edge by grinding off the outside. This tube, by means of a slight rotatory movement, is made to penetrate, perpendicularly, the denuded surface of the cerebral convolutions. If the membranes are wholly removed the instrument penetrates like a punch, cutting without bruising. Placing the pulp of a finger upon the upper orifice, the tube can be removed, bringing out a cylinder of brain substance, of which the gray portion can be measured by the divisions which it covers. Tables are constructed containing the printed names of the principal convolutions, with blanks to be filled with the results of multiplied measurements taken in each locality. We are disposed to regard this little instrument as one of real value. It makes certainly the first approach to accuracy in estimating that portion of the cerebral substance acknowledged to be alone concerned in intellectual action. Dr. Major believes that different convolutions of healthy brains exhibit a diversity of thickness in the gray matter that forms their exterior, certain parts being always thickly, and certain others thinly, covered.

Dr. Patrick Nicol writes upon "The Mental Symptoms of Ordinary Disease." The leading idea seems to be, that diseases of organs not immediately connected with the mental powers do yet tend to produce certain kinds of mental disturbance. A knowledge of such tendencies, therefore, may give important suggestions as to the treatment of insane patients. Illustrative cases are first presented to show how diseases of an organic character attacking the brain, affect or leave unaffected the intellectual powers, according as the gray matter of the convolutions is, or is not, involved. General remarks follow upon the well-known tendencies of certain classes of bodily disease to affect the brain secondarily, producing all grades of disturbance, from slight exhilaration or depression to mania or profound melancholia.

A paper on "The Electric Treatment of the Insane" states the results of the electric constant current, applied to the head and the neck, in various forms of cerebral disease. In one case of "brain-wasting" and in three of melancholia, no good resulted from this treatment. A very few cases of mania are regarded by the author as exhibiting benefit from such treatment. In acute dementia, the writer believes he has obtained more decided good effects. It is only fair to say that Dr. Allbutt does not claim any very great or marked results so far, though he regards the treatment as well worth an extended trial.

Dr. Aldridge, who contributed to the previous volume some valuable observations on the "Ophthalmoscope in Mental and Cerebral Diseases," publishes in the present issue some further observations as to the effects of certain drugs upon the intra-ocular circulation; together with the results of ophthalmoscopic examination in forty-three cases of "general paralysis." Nearly all the cases examined were somewhat advanced. In most of them a bloodless and atrophic condition of the whole or some part of the papillæ was observed, while in others a degree of passive congestion was present. We cannot see that, so far, these observations afford much help toward an understanding of the pathology of Paresis. Nevertheless, such inspections should be made and recorded, in the faith that ultimately they will be useful.

The drugs whose effects upon the circulation in the optic disks are here described, are belladonna, hyoscyamus, and picrotoxine (the active principle of cocculus indicus), as productive of hyperæmia; and laburnum and ergot as causing anæmia. Only four cases are adduced as supporting the author's view of the action of belladonna, and two of hyoscyamus; but in these the experiments were often repeated, with uniform results. Picrotoxine was tried only upon the lower animals, acting as a very powerful poison, causing hyperæmia of the disks and of the brain. Laburnum and ergot are believed to cause anæmia of the disks; but only one case illustrative of the action of each drug is here adduced.

In a paper on "The Use of Opium in the Treatment of Melancholia," Dr. E. Maziere Courtenay vigourously assails the position of those who of late years have so malignantly condemned and vilified the use of this drug in insanity. Notwithstanding the denunciations of some writers of high repute, Dr. Courtenay dares to say that, far from being made worse, weakened, impoverished in blood and weight, injured in appetite and digestion, by the use of opiates, many patients gain in sleep, general tranquillity, cheerfulness, appetite, digestion, strength, and weight.

While disposed to admit that this class of remedies has been abused, we believe, with Dr. Courtenay, that they are of very great value in many cases, in cluding, though not confined to, melancholia. It is certainly a great mistake to maintain that even the protracted use of opiates is incompatible with good appetite, digestion, and nutrition.

Dr. W. A. T. Browne contributes an article on the "Impairment of Language the Result of Cerebral Disease." We can hardly give an idea of the import of this somewhat speculative paper, better than by quoting a few of its closing words. "A very large number of different deviations from the normal use of language must be taken into consideration besides its abolition, before we are in a position to generalize confidently upon the subject. It must be confessed that the physiological and pathological evidence as to the localization of an organ for such a faculty is as yet incomplete or contradictory." It is added that the weight of research and opinion favours the belief that some parts of the anterior cerebral lobes are connected with the articulate expression of thought.

Dr. George Thompson, whose applications of the Sphygmograph within the asylum wards furnished matter for an interesting paper in the previous volume, now gives us three tracings taken during the *status epilepticus;* one being especially curious from the fact that a fit came on while it was taking, and thus recorded itself upon the paper. The tracings obtained during the *status epilepticus* are much nearer a straight line than those of health; the angles are all rounded off and the aortic notch wholly absent. B. L. R.

ART. XXVII.—*A Practical Treatise on Urinary and Renal Diseases, including Urinary Deposits. Illustrated by numerous cases and engravings.* By WILLIAM ROBERTS, M.D., F.R.C.P. Lond.; Physician to the Manchester Royal Infirmary, etc. Second American from the second revised and considerably enlarged London edition. 8vo. pp. 616. Philadelphia: Henry C. Lea, 1872.

THE importance which the kidney and its secretion have within late years assumed in the investigation of disease has rendered their study peculiarly attractive to the physician; hence, we are not surprised to learn that the first edition of Dr. Roberts's excellent treatise and the American reprint were exhausted some three years ago. The author has been unable, until lately, to undertake the revision of the work, but it has not suffered by the delay, for in almost every chapter evidence of careful emendation is found.

Two articles, one on suppression of urine, the other on paroxysmal hæmaturia, have been added. The former was one of the author's contributions to the first volume of the *Manchester Medical and Surgical Reports*, and was analyzed in the No. of this Journal for July, 1871, page 188. The author calls attention to the remarkable absence of coma and convulsions—the most common features of clinical uræmia—in cases of obstinate suppression of urine; and the cases related show that fatal suppression of urine, from blocking up of the ureters, generally runs its course without the usual symptoms of uræmia, as witnessed in Bright's disease.

In the article on Urea, we read that "the immediate effect of muscular exercise appears to be to restrain (or at least not to increase) the excretion of urea, but it is increased in the period of rest which follows exercise." This statement, although in accordance with the results obtained by Fick and Wislicenus, Frankland and Haughton, is disproved by the accurate and elaborate observations made by Dr. Austin Flint, Jr., upon a well-known pedestrian (see this Journal for January, 1872, page 163), and with which Dr. Roberts appears to be unacquainted.

Among the errors of omisson, we also notice the absence of any mention of an illusory detection of fat in the urine, which was pointed out a short time ago by Messrs. Lea and Atlee.[1]

Dr. Roberts calls attention to the pigmentary particles which are almost constantly to be seen, by the aid of the microscope, in the urine, and which, strange to say, seem to have been heretofore undescribed. They appear either as free amorphous particles of a reddish-brown colour, varying in size from mere specks to particles as large as pus-globules, or as cell-like bodies, with an oblique, ovoid, well-defined outline, within which lie masses of red or orange pigment, often very unequally distributed. When the celloid is stuffed, as it were, with the pigment, it loses its transparency, and appears almost black in the field of

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[1] Am. Journ. of Med. Sci., April, 1869, page 357.